

REMARKS

First, Applicants gratefully acknowledge the courtesies extended by Examiner Ceperley in granting a personal interview on July 11, 2006. During that interview, the Examiner and Applicant's Representative discussed the Bronstein references cited in the last office action with respect to the embodiments encompassed by Claim 1. Applicant's Representative also proposed presenting separate independent claims directed to the several embodiments encompassed by Claim 1.

Claims 1, 9, 21 and 22 have been amended. Claims 2, 4-6, 10, 23, 27, 32-68 have been canceled without prejudice or disclaimer. Claims 69-74 have been added. Support for the amendments to the new claims can be found in the Specification at least at page 6, lines 17-20, page 27, line 22 et seq., page 23, line 16 to page 24, line 6 and in FIGS. 4, 6 and 7. No new matter has been added and entry is respectfully requested.

Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. This rejection is respectfully traversed. Claim 1 has been amended to recite a support having a surface and a chemiluminescent quantum yield enhancing material present in spatially defined regions on the surface of the support. Support for the subject matter of Claim 1 can be found in the specification at least at page 6, lines 15-20. Claim 22 has been amended to depend from Claim 1. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. According to the Official Action, the specification does not provide an enabling

disclosure for: i) a quaternary onium polymer covalently attached to a surface as set forth in Claim 5; or ii) the chemiluminescent enhancing material on the opposing side of the support relative to the probes as set forth in Claim 4. This rejection is respectfully traversed. First, Claim 5 has been canceled. Second, with respect to the subject matter of Claim 4, the specification discloses that the layer of chemiluminescent enhancing material on the surface opposite the support can enhance the diffusion of chemiluminescent reporter molecules through the support (page 22, lines 5-14 of the Specification). Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 1, 3-9, 11-22, 24-26, 28-31 and 68 have been rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. According to the Official Action, it is unclear what is meant by “a support layer having first and second opposed major surfaces”. Claim 1 has been amended to remove this language. Also according to the Official Action, the language of Claim 68 is confusing. Claim 68 has been canceled. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 1, 3, 7, 8 and 22 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 4,849,495 to Bronstein et al. (hereinafter referred to as “Bronstein ‘495”). Claims 1, 3, 8 and 22 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,336,596 to Bronstein et al. (hereinafter referred to as “Bronstein ‘596”). Each of the aforementioned rejections is respectfully traversed.

Claim 1 recites a support having a surface, a chemiluminescent quantum yield enhancing material present in spatially defined regions on the surface of the support and probes covalently, ionically or physically attached to the surface of the support. The Official Action has pointed to no teaching or suggestion in either of the cited references of a solid support as set forth in Claim 1. Moreover, Bronstein '596 discloses the use of quaternary onium polymers as a membrane or as a coating on other supports (column 8, lines 45-47 of Bronstein '596). Bronstein '495 similarly discloses the use of the quaternary onium polymers as a membrane or as an overcoating for "preformed membranes" (column 13, lines 32-35 of Bronstein '495). Accordingly, it is respectfully submitted that Claim 1 is patentable over the cited references. Claims 3, 7, 8 and 22 depend either directly or indirectly from Claim 1. Accordingly, Claims 3, 7, 8 and 22 are also patentable over the cited references for at least the reasons set forth above with respect to Claim 1. In view of the above, reconsideration and withdrawal of the aforementioned rejections is respectfully requested.

Claims 69-74 have been added. Claim 69 is directed to a solid support comprising: a support having a surface; a chemiluminescent quantum yield enhancing moiety covalently attached to the surface of the support; and a plurality of immobilized probes for a biopolymer target attached to the surface of the support. The Official Action has pointed to no teaching or suggestion in any of the cited references of a solid support as set forth in Claim 69 comprising a quantum yield enhancing moiety covalently attached to a surface of a support. Claims 70 and 71 depend from Claim 69 and are therefore also patentable for at least the reasons set forth above with respect to Claim 69. Claim 72 is directed to a solid support comprising: a planar support; a plurality of

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immobilized probes for a biopolymer target attached to a first surface of the support; and a chemiluminescent quantum yield enhancing material on a second surface of the support opposite the first surface of the support. The Official Action has pointed to no teaching or suggestion in any of the cited references of a solid support as set forth in Claim 72. Claims 73 and 74 depend from Claim 72 and are therefore also patentable for at least the reasons set forth above with respect to Claim 72.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully request a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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